E42 p39se SPB
2000-08-26

CLAIMS

1. A process of forming an encapsulated circuit having at least one layer of circuitry, the encapsulated circuit having a first side as an interface side and a second side as a protective cover, **characterized in that** the process comprises the steps of:

- applying at least one layer of sequentially processed circuitry on a first side of an interface carrier, a second side of the interface carrier being the interface side of the encapsulated circuit,
- joining the last applied sequentially processed circuitry layer to a support carrier by means of an adhesive layer, the support carrier forming the protective cover of the second side of the encapsulated circuit.

2. The process according to claim 1, **characterized in that** the process further comprises the step of:

- applying the adhesive layer on top of the last applied sequentially processed circuitry layer.

3. The process according to claim 1, **characterized in that** the process further comprises the step of:

- applying the adhesive layer to the support carrier.

4. The process according to any one of claims 1 to 3, **characterized in that** the application of at least one of the at least one sequentially processed circuitry layer is by means of offset printing technology.

5. The process according to claim 4, **characterized in that** a dielectric of at least one of the at least one sequentially processed circuitry layer is acrylate.

6. The process according to any one of claims 2 or 3, **characterized in that** the application of the adhesive layer is by means of offset printing technology.

7. The process according to any one of claims 1 to 6, **characterized in that** the support carrier is at least a part of a cover housing in which the encapsulated circuit is mounted.

8. The process according to any one of claims 1 to 6, **characterized in that** the support carrier is at least a part of an enclosure on which the encapsulated circuit is mounted.

9. The process according to any one of claims 1 to 6, **characterized in that** the support carrier is rigid.

10. The process according to any one of claims 1 to 6, **characterized in that** support carrier is bendable.

11. The process according to any one of claims 1 to 10, **characterized in that at** at least one of the at least one sequentially processed layer comprises connection circuitry.

12. The process according to any one of claims 1 to 11, **characterized in that at** at least one of the at least one sequentially processed layer comprises at least one passive component.

13. The process according to any one of claims 1 to 12, **characterized in that** at least one of the at least one sequentially processed layer comprises at least one active component.

14. The process according to any one of claims 1 to 13, **characterized in that** the interface layer comprises at least one via.

15. The process according to claim 13, **characterized in that** at least one of the at least one via is solid.

16. The process according to any one of claims 1 to 15, **characterized in that** the interface layer is bendable.

17. The process according to any one of claims 1 to 16, **characterized in that** the interface layer is made of polymide.

18. A device comprising wireless communication means, **characterized in that** the device comprises an encapsulated circuit made according any one of claims 1 to 17.

19. A wireless mobile terminal, **characterized in that** the terminal comprises an encapsulated circuit made according any one of claims 1 to 17.

20. An encapsulated circuit having at least one layer of circuitry, the encapsulated circuit having a first side as an interface side and a second side as a protective cover, **characterized in that** the circuit comprises:

- an interface layer having a first side and a second side, a first side of the interface layer being the interface side of the encapsulated circuit,
- at least one layer of sequentially processed circuitry on the second side of the interface carrier,
- a support carrier forming the protective cover of the second side of the encapsulated circuit,

- an adhesive layer between a top of the last sequentially processed circuitry layer and the support carrier.

21. The circuit according to claim 20, **characterized in that** at least one of the at least one sequentially processed circuitry layer has been added by means of offset printing technology.

22. The circuit according to claim 21, **characterized in that** a dielectric of at least one of the at least one sequentially processed circuitry layer is acrylate.

23. The circuit according to any one of claims 20 to 22, **characterized in that** the adhesive layer has been added by means of offset printing technology.

24. The circuit according to any one of claims 20 to 22, **characterized in that** the support carrier is at least a part of a cover housing in which the encapsulated circuit is mounted.

25. The circuit according to any one of claims 20 to 22, **characterized in that** the support carrier is at least a part of an enclosure on which the encapsulated circuit is mounted.

26. The circuit according to any one of claims 20 to 22, **characterized in that** the support carrier is rigid.

27. The circuit according to any one of claims 20 to 22, **characterized in that** the support carrier is bendable.

28. The circuit according to any one of claims 20 to 27, **characterized in that** at at least one of the at least one sequentially processed layer comprises connection circuitry.

29. The circuit according to any one of claims 20 to 27, **characterized in that** at at least one of the at least one sequentially processed layer comprises at least one passive component.

30. The circuit according to any one of claims 20 to 29, **characterized in that** at at least one of the at least one sequentially processed layer comprises at least one active component.

31. The circuit according to any one of claims 20 to 30, **characterized in that** the interface layer comprises at least one via.

32. The circuit according to claim 31, **characterized in that** at least one of the at least one via is solid.

33. The circuit according to any one of claims 20 to 32, **characterized in that** the interface layer is bendable.

34. The circuit according to any one of claims 20 to 33, **characterized in that** the interface layer is made of polymide.

35. A device comprising wireless communication means, **characterized in that** the device comprises an encapsulated circuit according any one of claims 20 to 34.

36. A wireless mobile terminal, **characterized in that** the terminal comprises an encapsulated circuit according any one of claims 20 to 34.